

road bank near lumber camp of Camp Lumber Co., Great Dismal Swamp, southeast of Whitemarsh School, no. 10,490.

A strikingly distinct species, evidently adventive along the Naval railway. Itself well armored with promptly deciduous fine stinging bristles on the lower sheaths! See p. 469.

P. PRAECOX Walt., var. *CURTISIANUM* (Steud.) Vasey (*P. lentiferum* Lam.). To the single known Virginian station (in Sussex County) add one in GREENSVILLE COUNTY: sphagnous bog about 1 mile northwest of Dahlia, no. 9255. See p. 485.

**PANICUM FUSIFORME* Hitchc. DINWIDDIE COUNTY: dry clearings and borders of woods south of Burgess Station, no. 8560.

Extension north from Georgia. See p. 469.

P. NITIDUM Lam. To the few Virginian stations add one in GREENSVILLE COUNTY: wet cut-over pine and oak woods near Three Creek, north of Emporia, no. 8561.

P. MATTAMUSKEETENSE Ashe, var. *CLUTEI* (Nash) Fernald in RHODORA, xxxix. 386 (1937). Range extended inland to GREENSVILLE COUNTY: sphagnous bog about 1 mile northwest of Dahlia, no. 8562.

P. CAERULESCENS Hack. To the single station in Princess Anne County cited by Hitchcock & Chase add one in SUSSEX COUNTY: moist (in midsummer exsiccated) argillaceous pineland about 2 miles east of Stony Creek, nos. 8940, 9525 and 10,500. PRINCESS ANNE COUNTY: inner border of brackish to fresh marsh along Back Bay, at eastern margin of Long Island, no. 10,501.

Certainly a very rare species in Virginia. See p. 476.

P. ALBOMARGINATUM Nash. Inland to GREENSVILLE and SUSSEX COUNTIES.

P. TRIFOLIUM Nash. Inland to DINWIDDIE COUNTY.

P. ENSIFOLIUM Baldwin. Inland to DINWIDDIE and GREENSVILLE COUNTIES.

(To be continued)

DISTRIBUTION NOTES CONCERNING PLANTS OF GLACIER NATIONAL PARK, MONTANA—II

BASSETT MAGUIRE

During part of the summer of 1934, the writer, for a second time, had the opportunity to make observations on the flora of the Glacier National Park. The notes here presented are in continuation of the report made upon new or interesting records obtained in 1932 (Maguire 1934).

BOTRYCHIUM SILAIFOLIUM Presl. No. 5419,¹ common in bogs about Logging Lake. Altitude 3800 feet.

EQUISETUM SYLVATICUM L. No. 5422, common under conifer woodland, Park Creek. No. 5423, common in damp humus soil along streams in dense spruce woodland, Ole Creek.

This delicately branched horsetail is apparently quite commonly and generally distributed in the moist forests of the west slope. Altitude 4000–4500 feet.

LYCOPODIUM SELAGO L. No. 5428, deep humus under thickets about the shore of Howe Lake. No. 15374, on floating log, Lincoln Lake.

These two new localities suggest that this clubmoss is quite commonly distributed about bogs in the western drainage of the Park. Altitude 4100–4500 feet.

**EQUISETUM PRATENSE* Ehrh. No. 5425, along sand bank in woodlands, inlet of Bowman Lake. Altitude 4020 feet.

**ISOETES BRAUNII* Durieu. No. 5429, floating in Trout Lake.

These plants were not collected "in situ," but the large quantity found floating on the surface indicates that they are a common inhabitant of the lake. Altitude 3880 feet.

**ERIOPHORUM GRACILE* Koch. No. 5467, uncommon in bogs about Howe Lake. Altitude 4100 feet.

**ERIOPHORUM VIRIDI-CARINATUM* (Engelm.) Fernald. No. 5468, common in wet meadows in the vicinity of Christensen's Ranch, 8 miles north of Fish Creek Ranger Station. Altitude 3780 feet.

**SCIRPUS HUDSONIANUS* (Michx.) Fernald. *RHODORA* 8: 161. 1906; Gray's Man. 7th Ed. 1908. Wiegand and Eames, Flora Cayuga Lake, 1926, not *Eriophorum Chamissonis* C. A. Meyer. No. 5470, common in wet meadows in the vicinity of Christensen's Ranch, 8 miles north of Fish Creek Ranger Station. Altitude 3780 feet.

It is possible that this collection represents the *Eriophorum Chamissonis* of the Flora of Glacier Park (Standley 1921).

**SCIRPUS SUBTERMINALIS* Torr. No. 5563, infrequent, Lake McDonald. Altitude 3144 feet. Only sterile material seen.

JUNCUS FILIFORMIS L. No. 5549, wet meadows, vicinity of Christensen's Ranch. No. 5550, marshes along shore of Logging Lake.

These two additional stations suggest a fairly general distribution for this species of *Juncus*. Altitude 3780–3800 feet.

**ALLIUM FIBRILLUM* M. E. Jones. *A. collinum* Dougl., not Guss. No. 15399, frequent in open parks, Upper Park Creek. Altitude 4500 feet.

¹ These numerals represent the writer's collection numbers.

* The asterisk designates plants which seem not to have previously been reported from Glacier National Park.

HABENARIA OBTUSATA (Pursh) Richards. No. 5573, about inlet of Bowman Lake. No. 15411, frequent in deep, wet spruce woodland near inlet of Bowman Lake.

Reported by Standley (op. cit.) only from the vicinity of Lake McDermott on the east side of the park. Altitude 4020 feet.

*POLYGONUM WATSONII Small. No. 15463, sandy soil under second growth *Pinus Murrayana*, vicinity of Marias Pass. Altitude 5200 feet.

*PHILADELPHUS LEWISII Pursh. No. 15529, very conspicuous on cliffs and rocky slopes along lower Ole Creek. Observed but not collected on slopes seen from the roadside, vicinity of St. Mary's Hotel. Altitude 4000–4500 feet.

POTENTILLA ARGENTEA L. No. 15822, common in dry gravelly places, Fish Creek Ranger Station. Altitude 3150 feet.

*RUBUS ARCTICUS L. No. 15824, common in wet mountain meadow, vicinity of Christensen's Ranch, 8 miles north of Fish Creek Ranger Station. Altitude 3800 feet.

CALLITRICHE PALUSTRIS L. No. 901, abundant on mud and in shallow water about pond near outlet of lower St. Mary Lake. No. 902, common in marshes south of John's Lake. No. 5600, below reservoir, $\frac{1}{2}$ mile west of Summit R. R. Station, Marias Pass. Altitude 3150–5200 feet.

CALLITRICHE HERMAPHRODITICA L. No. 903, abundant in 18 inches of water about inlet of St. Mary Lake. No. 904, in shallow pool along beach of Lake Josephine. No. 906, along mud bank, Swift Current Creek, below Swift Current Lake. No. 5601, in two feet of water, Rogers Lake. Altitude 3780–4860 feet.

*HYPERICUM PERFORATUM L. No. 15865, along Bear Creek.

Possibly this weedy plant is of recent introduction to the park.

LINANTHUS HARKNESSII (Curran) Greene. No. 15622, common, open places in woodland, along trail to Ptarmigan Pass, 2 miles from Mary Glacier's Hotel. Altitude, 4600 feet.

*GALIUM TINCTORIUM L., var. SUBBIFLORUM (Wieg.) Fern. No. 15605, marsh about pond, Ole Creek; common in wet mountain meadows, vicinity of Christensen's Ranch, 8 miles north of Fish Creek Ranger Station. Altitude 3780–5000 feet.

*ANTENNARIA APRICA Greene. No. 15759, slopes, Ole Creek. Altitude 4500 feet. No. 15758, open places, slopes, Ole Creek. Altitude 5000 feet. No. 15757, meadows about Lake Katherine, Ole Creek. Altitude 5500 feet.

*ANTENNARIA FUSCA E. Nels. No. 15760, open slopes in Spruce-lodgepole woodlands, Ole Creek. Altitude 5500 feet. No. 15761, slopes, Ole Creek 15 miles above mouth. Altitude 5500 feet. No. 15762, along Ole Creek.

These two species of *Antennaria* occurred frequently and in exten-

sively developed colonies on slopes in open woodlands and meadows along upper Ole Creek. It seems improbable that this one drainage should represent the entire distribution within the park.

In the earlier report, the writer (1934) made comment upon a number of species of *Arnica* collected in the park. Since that time he has carried on more detailed studies in the genus, the results of which make desirable corrections and further elaboration of the former notes.

*ARNICA RYDBERGII Greene. No. 1088, meadows at Cracker Lake. Altitude 6250 feet. No. 1089, above timber line, Piegan Pass. Altitude 7500 feet.

These records confirm the writer's former tentative determination. In addition, the writer has seen 5 collections of *P. C. Standley* (Nos. 16404, 16712, 17243, 15793, 15769, deposited in the U. S. National Herbarium), all of which are *A. Rydbergii*. It seems that these constitute primarily the basis for the inclusion of *A. alpina* (L.) Olin in Standley's "flora" (op. cit.).

The writer, in the same brief notes mentioned above, erroneously reported *A. diversifolia* from Glacier Park. It seems that this species has not been collected within the park boundaries.

Further, reference was made to certain plants which the writer had collected as "an exceedingly interesting form of the *Diversifolia* group which is not placeable in the above (*A. diversifolia*) species." Subsequently these plants formed the basis for specific distinction by Professor Nelson (1934) as *A. trina*² A. Nels. Subsequent examination of a much larger series of plants from Glacier Park demonstrated this form to be merely a large and few-headed phase, with 4-6 pairs of cauline leaves, of the polymorphic *A. amplexifolia* Rydb. (*A. amplexicaulis* Nutt., not Wall.). This local population predominantly occurs in the park, but intergrades there with the less frequent but more typical forms of the species. Therefore, this variant designated by Nelson as *A. trina* must become *Arnica amplexifolia* Rydb. var. **trina** (A. Nels.), comb. nov. A representative series of this variety is Maguire, Nos. 1095 (type number of *A. trina* A. Nels. deposited at the Rocky Mountain Herbarium), 1094 (cotype of *A. trina* A. Nels.), 1090, 15335, 15337, 15339, and P. C. Standley, Nos. 15601, 16668, 17286 and 18012 (deposited in the U. S. National Herbarium).

Also, in this earlier paper, the writer called attention to ". . .

² *Arnica trina* A. Nelson. Am. Jour. Bot. 21: 581. 1934.

a fine, large-leaved *Arnica* probably of *Foliosae* group . . . ". Subsequently, Professor Nelson paid the writer the gracious compliment of naming these plants *Arnica Maguirei*. Subsequent collections in the park area and study of large series of specimens from various American and European herbaria reveal the plants under discussion to be a giant local variant of the complex and polymorphic assemblage which has variously gone under the name of *A. foliosa* Nutt. and those of numerous untenable segregates, and that moreover this assemblage represents a southern geographical race¹ of the earlier *A. Chamissonis* Less.² Therefore this large-leaved, tall (6–9 dm. high) variant becomes *Arnica Chamissonis* subsp. *foliosa* (Nutt.) Maguire, var. **Maguirei** (A. Nels.), comb. nov. The typical form of the ssp. *foliosa* occurs frequently in the area, as do many intergrades to the var. *Maguirei*. Collections which represent this extreme variant are the writers Nos. 1098 (the type collection of *A. Maguirei*) and 15356, a topotype.

Unless otherwise designated, all collections mentioned in this paper are represented in the Herbarium of the Utah State Agricultural College.

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Logan, Utah

LIST OF SECOND HUNDRED FUNGI OF NANTUCKET³

E. F. GUBA

THE island of Nantucket, Massachusetts, presents a fertile field of effort to one interested in its mycologic flora. Its ferns and flowering plants have been thoroughly worked by Bicknell⁴ whose contributions

¹ *Arnica Chamissonis* Less. subsp. **foliosa** (Nutt.) Maguire, comb. nov. *Arnica foliosa* Nutt. *Trans. Am. Phil. Soc.* **11**. 7: 408. 1841.

² *Arnica Chamissonis* Lessing. *Linnaea* **6**: 238. 1831.

³ Contribution Vol. IV No. 1 of the Nantucket Maria Mitchell Association, Div. of Natural Science, Nantucket, Mass. For the List of the First Hundred see *RHODORA* **39**: 367–376, 1937. The cost of illustration is met by the author and by the Maria Mitchell Association.

⁴ For bibliography, see first list of Nantucket Fungi.